

HAHN AND ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS

February 17, 2014

Mr. Dana Bayuk
Oregon Department of Environmental Quality
Northwest Region, Portland Office
Portland Harbor Section
2020 SW Fourth Avenue, Suite 400
Portland Oregon 97201-4987

HAI Project No. 2708
DEQ ECSI File No. 84

SUBJECT: Progress Report, NW Natural Gasco Property, 7900 NW St. Helens Avenue, Portland, Oregon

Dear Mr. Bayuk:

Hahn and Associates, Inc. (HAI) has prepared this monthly Progress Report summarizing Remedial Investigation/Feasibility Study (RI/FS) and source control-related work activities conducted by NW Natural that have occurred relating to the Gasco property during the month of January 2014. NW Natural is completing upland investigatory activities at the subject property under the Voluntary Agreement No. ECV-C-WMCVC-NWR-94-13 (Voluntary Agreement) between NW Natural and the Oregon Department of Environmental Quality (DEQ).

1.0 Communications and Document Submittals

In e-mail correspondence dated January 8, 2014 (Dana Bayuk to John Edwards), DEQ provided approval for NW Natural to proceed with redevelopment of extraction wells PW-1L and PW-1U.

In e-mail correspondence dated January 21, 2014 (Dana Bayuk to Rob Ede), DEQ provided clarification and concurrence regarding anticipated modifications to the previously submitted Field Sampling Plan (FSP) for Doane Creek Embankment Soil and Sediment.

In e-mail correspondence dated January 23, 2014 (Rob Ede to Dana Bayuk), HAI provided notice that the revised Doane Creek FSP would be submitted to DEQ on or before January 29, 2014.

A Program Management Implementation meeting was conducted with DEQ on January 23 to discuss the NW Natural program management and project schedules.

A regularly scheduled meeting (teleconference) with representatives of NW Natural, DEQ, EPA, and Siltronic was conducted on January 23, 2014 to discuss technical items as related to the testing and implementation of groundwater source control.

In e-mail correspondence dated January 24, 2014 (John Renda to Dana Bayuk), and at the request of DEQ, Anchor QEA provided documentation as requested by DEQ to demonstrate the accuracy of river elevation data as collected by pressure transducers installed adjacent to Gasco.

In e-mail correspondence dated January 24, 2014 (Dana Bayuk to John Renda), DEQ provided concurrence that pressure transducers installed by Anchor QEA adjacent to the Gasco site are recording river levels correctly.

In e-mail correspondence dated January 24, 2014 (Ben Hung to Dana Bayuk), Anchor QEA, on behalf of NW Natural, transmitted task schedules for the Gasco Uplands, Source Control, and Siltronic MGP projects to DEQ for review and feedback.

In correspondence dated January 27, 2014 (Ben Uhl to Dana Bayuk), HAI transmitted hard copies of the previously distributed *Environmental Monitoring Report, NW Natural Gasco Site, Third and Fourth Quarter 2012*, dated December 13, 2013.

In correspondence dated January 29, 2014 (Dana Bayuk to Bob Wyatt), DEQ transmitted comments from review of the *Data Report: Groundwater Source Control Extraction System Test – NW Natural Gasco Site*, dated December 23, 2013. This correspondence approved NW Natural recommendations to perform a source control system test (Phase 1 – Step 4) with a set point of -0.3 feet.

In correspondence dated January 29, 2014 (Rob Ede to Dana Bayuk) HAI transmitted the *Revised Supplemental RI Field Sampling Plan, Doane Creek Embankment Soil and Sediment*, dated January 29, 2014.

In correspondence dated January 29, 2014 (Rob Ede to Dana Bayuk), HAI, on behalf of NW Natural, provided responses to DEQ comments as provided in their November 27, 2013 review of the *RI Data Summary Report, Historical Manufactured Gas Plant Activities, Siltronic Property*, dated March 31, 2011 and the *Supplemental RI FSP, Doane Creek Soil and Sediments*, dated March 29, 2012.

In e-mail correspondence dated January 29, 2014 (John Renda to Dana Bayuk) Anchor QEA provided an update and clarification on the status of extraction well redevelopment in advance of the next source control system test.

2.0 Field Work

HAI field activities related to monitoring and maintenance of the dense non-aqueous phase liquid (DNAPL) extraction system at surficial fill well locations MW-6-32 and MW-13-30 occurred during January. The system recovered approximately 3 gallons of fluids, primarily DNAPL, during this time. The recovery volumes for this system have declined substantially over the last two months and the pump and related components are presently being evaluated for necessary cleaning or repairs.

Tasks related to optimization of the hydraulic control and containment system and the wastewater treatment system were conducted in January 2014, including redevelopment of selected extraction wells and Willamette River outfall construction (ongoing).

Baseline DNAPL removal as needed to maintain at levels below the tops of the well sumps, was conducted by Anchor QEA in the following wells near the river shoreline.

- PW-01-80
- PW-2L
- MW-16-45
- MW-18-30
- MW-26U
- MW-34L
- MW-38U
- WS-14-161

Discharge of treated water to the City of Portland sanitary sewer was initiated on March 16, 2007 under Temporary Wastewater Discharge Permit 500.022 (expires February 15, 2017). Results from NW Natural's effluent sampling are provided to BES in Discharge Monitoring Reports that are submitted for any month that effluent sampling occurs – which is at least quarterly in accordance with the permit. As of January 30, 2014 a total of 2,216,414 gallons of treated water have been discharged to the sanitary sewer in 2014, of which 1,664,506 gallons were treated groundwater from the source control extraction system, with the remainder being treated groundwater from the LNG containment basin.

3.0 Anticipated Activities February and March 2014

NW Natural and DEQ technical working group communications and meetings are anticipated to occur as needed during February and March 2014 to discuss ongoing project tasks.

The next extraction system test, as described within the December 23, 2013 *Data Report: Groundwater Source Control Extraction System Test for NW Natural Gasco Site*, is scheduled to be conducted in February 2014 contingent upon completion of necessary well redevelopment and wastewater treatment plant outfall construction.

The following reports and work plans for the Site have been submitted to DEQ through the date of this progress report. Unless otherwise noted, NW Natural has not received DEQ comments on these documents.

- *Source Control Evaluation Report, "Segment 3" Siltronic Property Related to NW Natural "Gasco" Site*, February 19, 2009, Anchor QEA. NW Natural will incorporate findings from this document into the Draft Siltronic RI Report and this document will not be listed in future progress reports.
- *Final Stormwater Source Control Data Summary Report*, September 2010, Anchor QEA. NW Natural will incorporate findings from this document into the Draft Siltronic RI Report and this document will not be listed in future progress reports.
- *Request for Concurrence: Discharge of Groundwater Monitoring Purge Water, NW Natural – Gasco Property*, dated May 24, 2012, HAI, 2012. NW Natural will provide an alternative proposal for the management of this purge water to DEQ and this request will be withdrawn at that time.
- *Memorandum – Wastewater Treatment Plant Construction Excavation Activities*, dated August 16, 2013, HAI. NW Natural provided this document for informational purposes as requested by DEQ and comments from the agency are not needed or expected. The information provided in this document will be used to inform project elements moving forward and this document will not be listed in future progress reports.
- *Revised Hydraulic Source Control and Containment System Groundwater Model Update Report*, dated October 9, 2013, Anchor QEA. DEQ provided comments from review of this document in correspondence dated February 13, 2014.
- *Gasco Upland Human Health and Ecological Risk Assessment Report*, dated October 24, 2013, Anchor QEA. (Preliminary comments received December 12, 2013). DEQ has stated that comments from review, inclusive of conditional approval of this document, will be issued by March 19, 2014.

- *Summary of Shakedown Operation of Gasco Source Control Hydraulic Containment and Treatment System*, dated November 5, 2013, Anchor QEA. NW Natural provided this document for informational purposes as requested by DEQ and comments from the agency are not needed or expected. The information provided in this document will be used to inform project elements moving forward and this document will not be listed in future progress reports.
- *Fill Water-Bearing Zone Trench Investigation Work Plan*, dated November 18, 2013, Anchor QEA. DEQ has not at this time provided a date by which comments from review of this document will be provided.
- *NW Natural Integrated Groundwater Monitoring Program, Gasco and Siltronic Properties*, dated November 20, 2013 HAI. DEQ has indicated that comments from review of this document will be issued by February 20, 2014.
- *Response to Comments, NW Natural RI Data Summary Report and Doane Creek RI Field Sampling Plan, Siltronic Corporation Property*, dated January 29, 2014 HAI. DEQ has indicated that comments from review of this document will be issued by February 28, 2014.
- *Revised Supplemental RI Field Sampling Plan, Doane Creek Embankment Soil and Sediment*, dated January 29, 2014, HAI. DEQ has indicated that comments from review of this document will be issued by February 28, 2014.

Should you have any questions, please contact the undersigned.

Sincerely,



Rob Ede, R.G.
Principal

robe@hahnenv.com

- c:
- Ms. Sandra Hart, NW Natural (electronic only)
 - Mr. Bob Wyatt, NW Natural (electronic only)
 - Ms. Patty Dost, Pearl Legal Group PC (electronic only)
 - Ms. Sarah Riddle, Pearl Legal Group PC (electronic only)
 - Mr. Carl Stivers, Anchor QEA, L.L.C. (electronic only)
 - Mr. John Edwards, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ben Hung, Anchor QEA, L.L.C. (electronic only)
 - Mr. Ryan Barth, Anchor QEA, L.L.C. (electronic only)
 - Mr. Henning Larsen, DEQ NW Region (electronic only)
 - Mr. Tom Gainer, DEQ NW Region (electronic only)
 - Mr. Keith Johnson, DEQ NW Region (electronic only)
 - Mr. Myron Burr, Siltronic Corporation (electronic only)
 - Ms. Kristine Koch, Region 10 EPA (electronic only)
 - Mr. Sean Sheldrake, Region 10 EPA (electronic only)
 - Mr. Rene Fuentes, Region 10 EPA (electronic only)
 - Mr. Chip Humphrey, Region 10 EPA (electronic only)
 - Mr. Lance Peterson, CDM, Inc. (electronic only)